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REMARKS

Claims 11 to 23 have been withdrawn from examination without prejudice.

Claim 24 is as previously presented and allowed.

Claims 25 and 26 are canceled.

Claim 27 is as previously presented and allowed.

Claim 28 is amended so as to withdraw from consideration anhydrous dextrose and anhydrous trehalose. It is respectfully submitted that the melting point of the xylose is within the range disclosed in claim 24, so it was kept as such within claim 28 (see enclosure : two pages of the Merck Index - 10th Edition (1983)).

Claim 29 is as previously presented and allowed.

Claims 30 to 36 are withdrawn from examination until allowance since a rejoinder has been requested. Claims 30 to 32 and 34 to 36 were allowed as previously presented.

Claim 33 has been withdrawn from consideration. The feature of claim 33 is already within claim 24 which is allowed.

Claim 34 has been currently amended so as to change its dependency.

In view of the foregoing, favorable consideration and prompt allowance of these claims are respectfully requested.

Respectfully submitted
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THE MERCK INDEX

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CHEMICALS, DRUGS, AND BIOLOGICALS

TENTH EDITION

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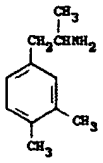
mp 131-133°.

Hydrochloride, $C_{16}H_{25}ClN_2$. *Novorin, Olynth, Otriven, Otrivin, Otrix.* Soly in water: up to 3%; also sol in methanol, ethanol. Practically insol in ether, benzene.

THERAP CAT: Adrenergic (vasoconstrictor).

9896. Xylopropamine. *α,3,4-Trimethylbenzeneethanamine; α,3,4-trimethylphenethylamine;* 1-(3,4-dimethylphenyl)-2-aminopropane. $C_{11}H_{17}N$; mol wt 163.25. C 80.92%, H 10.50%, N 8.58%. Prepd from 1-(3,4-dimethylphenyl)-2-propanone and ammonia in methanol followed by catalytic reduction: Swiss pat. 230,368 (1944 to Hoffmann-La Roche); *C.A.* 43, 3454i (1949).

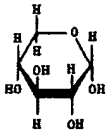


Oil, bp_{12} 116-118°. Slightly sol in water.

Hydrobromide, $C_{11}H_{18}BrN$, crystals, mp 132-133°. Ingredient of *Esanin.*

THERAP CAT: Adrenergic.

9897. Xylose. D-Xylose; wood sugar. $C_5H_{10}O_5$; mol wt 150.13. C 40.00%, H 6.71%, O 53.29%. Widely distributed in plant materials, especially in wood (maple, cherry), in straw, in hulls. Not found in free state, but in form of xylan, a polysaccharide built from D-xylose units and occurring in association with cellulose. Xylose occurs also as part of glycosides. Isoln from corn cobs by boiling with 8% H_2SO_4: Monroe, *J. Am. Chm. Soc.* 41, 1002 (1919). Peanut shells and cottonseed hulls also are practical sources of xylose: Ling, Nanji, *J. Chem. Soc.* 1923, 620. Configuration: Hudson, Yanovsky, *J. Am. Chem. Soc.* 39, 1029 (1917); Haworth, *Nature* 116, 430 (1925). Review on history, constitution and prepn: Harding, *Sugar* 24, 14 (1922).



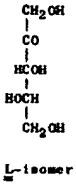
α-D-xylose

Monoclinic needles or prisms. Very sweet taste. mp 144-145° (Wheeler, Tollens, *Ann.* 254, 309); mp 153-154° (Hébert, *Compt. Rend.* 110, 970). d_4^{20} 1.525. Shows mutarotation. $[\alpha]_D^{20}$ +92° → +18.6° (16 hrs c = 10). One gram dissolves in 0.8 ml water. Sol in pyridine, hot alcohol. Ka at 18° = 7.2×10^{-13}. Reduces warm Fehling's soln. Upon heating with water in closed tube to 140° or by boiling with dil H_2SO_4 furfurol is formed.

USE: Xylose is used in tanning, dyeing, and as a diabetic food.

THERAP CAT: Diagnostic aid (intestinal malabsorption).

9898. Xylulose. *threo-Pentulose.* $C_5H_{10}O_5$; mol wt 150.13. C 40.00%, H 6.71%, O 53.29%. L-Form has been found in the urine of humans with pentosuria. Prepn of DL-form: Gascoigne, *Chem. & Ind. (London)* 1959, 402; of D-form: Mendicino, *J. Am. Chem. Soc.* 82, 4975 (1960); of L-form: Wolfrom, Bennett, *J. Org. Chem.* 30, 458 (1965). Isoln of DL-form from the acid hydrolysate of bagasse hemicellulose: Banerjee *et al., Sci. Cult. (Calcutta)* 27, 498 (1961), *C.A.* 56, 11682d (1962). Enzymic prepn of L-form: Hough, Jones, *Chem. & Ind. (London)* 1952, 907; *eidem, J. Chem. Soc.* 1952, 4047. Formation of L-form in normal humans and guinea pigs, and its utilization by guinea-pig liver prepns: Touster *et al., J. Am. Chem. Soc.* 76, 5005 (1954). *Reviews: The Carbohydrates,* W. Pigman, Ed. (Academic Press, New York, 1957) pp 80, 86-87, 759, 795; *Methods in Carbohydrate Chemistry* vol. 1, R. L. Whistler, M. L. Wolfrom, Eds. (Academic Press, New York, 1962) pp 94-101.



L-isomer

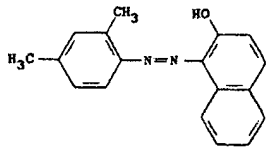
D-Isomer, syrup. $[\alpha]_D^{25}$ −33° (c = 2.5).

D-Isomer *p*-bromophenylhydrazone, $C_{11}H_{15}BrN_2O_4$, pale yellow crystals from abs ethanol + water, mp 128-129°. $[\alpha]_D^{20}$ +24° (15 min) → −31° (7 days, in pyridine). *Ref:* Whistler, Wolfrom, *loc. cit.*

L-Isomer, syrup. $[\alpha]_D^{23}$ +31°.

L-Isomer *p*-bromophenylhydrazone, yellow plates from dil alc, mp 128°. $[\alpha]_D^{20}$ −20° (10 min) → +22° (5 hrs, c = 0.5 in ethanol).

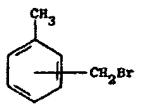
9899. 1-Xylylazo-2-naphthol. *1-[(2,4-Dimethylphenyl)azo]-2-naphthalenol; C.I. Solvent Orange 7;* 1-(2,4-xylylazo)-2-naphthol; FD & C Red no. 32; Oil Red XO; Ext. D & C Red no. 14; C.I. 12140. $C_{18}H_{16}N_2O$; mol wt 276.32. C 78.24%, H 5.84%, N 10.14%, O 5.79%. Once reported as 2,5-xylylazo deriv. Prepd by coupling diazotized *m*-xylidene with 2-naphthol: J. M. Tedder, *J. Chem. Soc.* 1957, 4003; R. B. Smyth, G. G. McKeown, *J. Chromatog.* 5, 395 (1961). Metabolism: J. L. Radomski, *J. Pharm. Exp. Ther.* 136, 378 (1962).



Red needles, mp 166°. Insol in water; sol in ethanol, acetone, benzene.

Caution: Delisted for use in foods, drugs, and cosmetics by the FDA.

9900. Xylyl Bromide. C_9H_9Br; mol wt 185.07. C 51.92%, H 4.90%, Br 43.18%. Prepn of *m*-isomer: Wenner, *J. Org. Chem.* 17, 523 (1952); of *o*-isomer: Dev, *J. Indian Chem. Soc.* 32, 403 (1955); of *p*-isomer: Cockburn *et al., J. Chem. Soc.* 1960, 3340.



***m*-Xylyl bromide,** *1-(bromomethyl)-3-methylbenzene, α-bromo-m-xylene, m-methylbenzyl bromide, ω-bromo-m-xylene.* Liquid, bp 212-215° with slight dec. d^{23} 1.371. Practically insol in water; sol in alcohol, ether.

***o*-Xylyl bromide.** Prisms, mp 21°. bp 223-234°, bp_{742} 216-217°, bp_{15} 102°. n_D^{27} 1.5730. d^{23} 1.381. Practically insol in water; sol in alcohol, ether.

***p*-Xylyl bromide.** Needles from alcohol, mp 38°, bp_{740} 218-220°, bp_{15} 120°. d 1.324. Practically insol in water; very sol in chloroform, hot ether.

USE: In organic syntheses; in war-gas formulations. *Caution:* Powerful lacrimator.

9901. Xylyl Chloride. C_9H_9Cl; mol wt 140.61. C 68.33%, H 6.45%, Cl 25.22%. Prepn of *o*-isomer: Rabjohn, *J. Am. Chem. Soc.* 76, 5479 (1954); of *m*-isomer: van Zanten, Nauta, *Rec. Trav. Chim.* 79, 1211 (1960); of *p*-isomer: Newman, George, *J. Org. Chem.* 26, 4306 (1961).